

REMARKS

In the Office Action of June 29, 2005, a number of issues were raised. Each of these issues will be addressed in the same order as provided by the Office Action.

Election/Restriction Requirement

The Examiner appears to have correctly identified a number of species, subspecies and sub-subspecies. The original provisional application was divided into three or more utility applications. This is just one of those utility applications. The Examiner has correctly identified that we elected to prosecute the inventions of species II, Figures 3a-3b, subspecies I, Figures 7-10 and sub-subspecies I, Figures 14-15 since all the claims can relate to these configurations.

Drawings

The Examiner objected to the drawings because of a number of informalities. Specifically, the drawings were alleged to lack a number of reference numerals. Reference numeral **30** is shown in Figure 2 as originally provided. Reference numeral **122** is shown in Figure 6 as originally provided. The Examining Attorney correctly identified that although a lead line was drawn to the pivot which is identified as reference numeral **146**, reference numeral **146** may have inadvertently been omitted from the drawing as originally submitted with this application. Nevertheless, formal drawings have been prepared for another allowed case and are provided herewith which are believed to address these drawing objections. These drawings are marked "Replacement Sheet" in accordance with the Examiner's instructions.

If the proposed drawings do not meet with the Examiner's satisfaction, please advise the applicant and the applicant will make specific changes.

Specification

The Examining Attorney has correctly identified that reference numeral **206** was inadvertently omitted from the detailed description. It has been added to Paragraph 35 through the enclosed proposed amendment.

Additionally, the Examiner has correctly identified a typographical error in the Brief Description of the Drawings, namely, the second figure “4a” should have been figure “4b.” This correction has also been addressed in the enclosed amendment.

Claim Rejections – 35 USC § 102

Claims 1-3, 5-9, and 11 were rejected as being anticipated by Gauthier, U.S. Patent No. 3,384,077. Claim 1 has been amended to clarify the invention which is believed to remove these rejections as they relate to these claims. Specifically, the leg extending from the clamp is described as extending cantileveredly away from the slot and has the mount for receiving a connector head of a retractor blade being associated with the leg.

Gauthier, U.S. Patent No. 3,384,077 is utilized as the cited reference by the Office Action. Two different figures are utilized to construct the rejection as it relates to claim 1. The applicant admits that figure 32 shows a rack with moveable arms. It does not show retractor clamp 120. Instead it shows retractor clamps 480,482,484,486. Presumably clamps 120 in figure 20 is the same as clamps 480,482,484,486. These clamps have a slot which receives an arm 310. Nowhere in this structure does there appear a mount for receiving connector head. The Office Action equates hole 324 as a mount for receiving a connector head. Nowhere is a connector head received or described as being received in hole 324. Hole 324 receives a screw for retaining the arm 310 in a desired position. Extension 320 is not a connector head. Furthermore, as affected by the amendment to the claims, the “leg” of Gauthier does not extend cantileveredly away from the slot which receives the arm. Accordingly, claim 1 as amended should not be anticipated by Gauthier.

Claim 2 stands or falls with claim 1.

Claim 3 has been amended to depend from claim 2. Claim 3 also adds the limitation that the latch be opposite at least a portion of the slot from the leg. This structure is not shown or described in the Gauthier reference and is believed to be separately allowable on this basis.

Claim 5 requires that the leg be angularly positionable relative to the member. It is the member which contains the slot. As effected by the amendment to claim, the leg is cantileveredly connected to the clamp. Remember, it is the leg which has the mount. Thus, the mount must also now be angularly positionable relative to the member. This structure is not shown or described in the Gauthier reference.

Claim 6 has been amended to require that both the leg and the mount be moved relative to the member. There is no way to move element 324 relative to the cited member in the Gauthier structure.

For claim 7 the additional limitation provides for incremental movement of the leg. The Examiner cites adjustment mechanism 132 in figure 3 to move the leg relative incrementally to the member. The adjustment mechanism 132 shown in figure 3 is a screw which tightens or releases a shaft of a retractor blade such as 314 in figure 20 or 152,160 in figure 3. It does not incrementally move any structure upon rotation of the screw 132 in figure 3. The leg does not incrementally move relative to a member upon operation of the screw 132.

Claim 8 requires the additional limitation of a release member disengaging the shaft from one of the member and the leg. The Examiner cites a release member 134 in figure 3. The cited elements are threads of a shaft. This is not a release member as claimed by the applicant. There is no way the cited threads can constitute a release member as claimed.

Claim 9 requires a projection which a threaded shaft passes through. Not only is the structure not shown in figure 3, the cited element 130 does not contain a projection as claimed.

Claim 11 has been amended to clarify specifically that the lever is biased into a plane of the slot which may not have been understood in the claim as originally provided. This structure is not shown or described in relation to figure 20 of the cited reference.

Claim 4 is rejected as being obvious over Gauthier in U.S. Patent No. 3,384,077. Claim 4 stands or falls with claim 1. In fact, the applicant would propose that the cited slot parallels the cited mount according to the structure cited by the Examiner. However, by amending claim 1,

the leg is now claimed to cantileveredly extend away from the slot which is not shown or described in Gauthier. The leg as cited by the Examiner in Gauthier extends directly above the slot, not away from it.

Claims 10 and 12 are rejected as being obvious over Gauthier, U.S. Patent No. 3,384,077 in view of Kohlmann, U.S. Patent No. 3,749,088. Claims 10 and 12 depend indirectly from claim 1 which has a leg cantileveredly connected to a clamp with a mount. This is not shown or described in Gauthier. Furthermore the leg 25 cited in Kohlmann does not have a mount thereon.

In order to form a *prima facie* case of obviousness, the Examiner must find all of the elements of the claim. The Office Action has not attempted to find structure which equates to a nut which moves along an axis of the shaft as claimed in claim 10.

The rejection of claim 12 is another improper *prima facie* case of obviousness. The Office Action has not cited a “release” as it relates to claim 12. The fact that Kohlmann shows an adjustable surgical retractor device does not mean that the cited reference provides a teaching to support an obviousness rejection. Claim 10 and 12 are allowable and such indication is respectfully requested.

Claims 13-16 were rejected as being obvious over Gauthier 3,384,077 in view of LeVahn, U.S. Patent No. 5,020,195.

After reviewing this rejection, the applicant continues to have difficulty following the logic of the Office Action. LeVahn shows an effective clamping device for use in a retractor support for clamping two rods together in a fixed angular position relative to one another. This device without serious modification cannot be made to work with the Gauthier structure since the Gauthier structure has rectangular arms or rack members. The clamping members in LeVahn are specifically constructed for use with cylindrical crossbars.

Without utilizing the applicant’s disclosure, there is not believed to be a way to modify LeVahn to work with Gauthier to meet the limitations of any of claims 13-16. This is not a proper *prima facie* case of obviousness. This rejection should be withdrawn.

Conclusion

None of the cited references have the claimed structure as clarified by the amendment to this application. A Petition for an Extension of Time for one month is appropriately enclosed herewith. The applicant respectfully requests allowance of all sixteen claims.

Respectfully submitted,

Date: 10/26/, 2005

By: 

Stephen J. Stark
Attorney for Applicant,
MILLER & MARTIN PLLC
Suite 1000 Volunteer Building
832 Georgia Avenue
Chattanooga, Tennessee 37402
(423) 756-6600

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By:


Beverly L. Middleton

***** VERSION SHOWING CHANGES MADE*****

[00035] Figure 14 shows a retractor blade **200** which has a head **202** and a contact surface **204**. Although the contact surface **204** is illustrated as a “Hohmann” contact surface which is shown in detail in Figure 15, Figures 16 -17 show a “Hayes” contact surface **206**. Of course other retractor blade contact surfaces which resemble paddles or other structures may also provide a contact surface for various uses. The head **202** may take on a number of shapes and is adapted to work with the selected mount of the clamp which will be utilized to retain the retractor blade.

***** VERSION SHOWING CHANGES MADE *****

[00013] The particular features and advantages of the invention as well as other objects will become apparent from the following description taken in connection with the accompanying drawings in which:

Fig. 1 is a top plan view of a retractor frame of a presently preferred embodiment of the present invention;

Fig. 2. is a top plan view of a first alternatively preferred embodiment of the retractor frame of the present invention;

Fig. 3a is a top plan view of a second alternatively preferred embodiment of the retractor frame of the present invention with two retractor clamps connected thereto;

Fig. 3b is a back side plan view of the rack used in the retractor frame of Figure 3a;

Fig. 4a is a top plan view of a third alternatively preferred embodiment of the retractor frame of the present invention with an extension arm connected thereto;

Fig. 4ab is a side perspective view of the extension arm shown in Figure 4a;

Fig. 5 is top plan view of a fourth alternatively preferred embodiment of the retractor frame of the present invention;

Fig. 6 is a side plan view of an arm of the fourth alternatively preferred embodiment in an unlocked position;

Fig. 7 is a side plan view of a preferred retractor clamp of the present invention;

Fig. 8 is a side plan view of the retractor clamp of Fig. 7 with the mount pivoted downwardly;

Fig. 9 is a side plan view of the retractor clamp of Fig. 7 with the mount pivoted upwardly;

Fig. 10 is a top plan view of the retractor clamp of Fig. 7.

Fig. 11 is a side plan view of a first alternatively preferred retractor clamp of the present invention;

Fig. 12 is a side plan view of a second alternatively preferred retractor clamp of the present invention;

Fig. 13 is a top plan view of the retractor clamp of Fig. 12;

Fig. 14 is a side plan view of a retractor blade for use in the present invention;

Fig. 15 is a top plan view of the retractor blade end shown in Figure 14.

Fig. 16 is top plan view of an alternatively preferred retractor blade end.

Fig. 17 is a side plan view of the retractor blade end of Fig. 16;

Fig. 18 is a side plan view of a handle for use with the retractor blades of Fig. 15-17. and

Fig. 19 is a perspective view of a surgical retractor system in use.

***** VERSION SHOWING CHANGES MADE *****

1. (Currently Amended) A surgical retractor comprising:

a laterally extending rack having a proximal and distal portion;

a first arm connected to the rack at a first location and extending longitudinally from the first location to an end;

a moveable second arm having a housing for slidably engaging a portion of the rack, said second arm extending longitudinally from the housing to an end; said housing having an adjustment mechanism for allowing the positioning of the housing relative to the rack at a desired location and at least temporary fixating the housing at the desired location; and

a retractor clamp having a slot therein, said clamp slidably engaged on one of the first and second arms, said clamp having a leg extending cantileveredly therefrom away from the slot, said leg having ~~with~~ a mount for receiving a connector head of a retractor blade.

2. (Original) The surgical retractor of claim 1 wherein the clamp further comprises a member containing the slot therein and a latch, said latch connected to the member for selectively retaining the clamp at a selected position relative to the one of the first and second arms.

3. (Currently Amended) The surgical retractor of claim ~~1~~2 wherein at least one of the first and second arms has a plurality of teeth in a toothed back surface and the latch is retained intermediate two of the plurality of teeth; and wherein the latch is opposite at least a portion of the slot from the leg.

4. (Original) The surgical retractor of claim 1 wherein the slot is at least substantially parallel to the mount.

5. (Original) The surgical retractor of claim 1 wherein clamp further comprises a member containing the slot therein, and the leg is angularly positionable relative to the member.

6. (Currently Amended) The surgical retractor of claim 5 wherein the clamp further comprises an adjustment mechanism coupled to the leg, and operation of the adjustment mechanism moves the leg and the mount relative to the member.

7. (Original) The surgical retractor of claim 5 wherein the adjustment mechanism further comprises a threaded shaft which is threadably received relative to at least one of the member and leg, and rotation of the threaded shaft allows for incremental movement of the leg relative to the member.

8. (Original) The surgical retractor of claim 7 further comprising a release member on one of the member and leg and operation of the release member disengages the threaded shaft from the one of the member and the leg.

9. (Original) The surgical retractor of claim 7 wherein the leg has at least one projection in which the threaded shaft passes through.

10. (Original) The surgical retractor of claim 9 further comprising a pivot connecting the member and the leg, and wherein the threaded shaft has a nut thereon which moves along an axis of the shaft upon rotation of the shaft and axial movement of the nut against the at least one projection rotates the leg relative to the pivot.

11. (Currently Amended) The surgical retractor of claim wherein the clamp further comprises a member housing the slot intermediate upper and lower surfaces, and a latch is coupled to one of the upper and lower surfaces and is biased into a plane of the slot to selectively retain the clamp relative to the one of the first and second arms.

12. (Original) The surgical retractor of claim 1 further comprising a release coupled to the latch wherein operation of the release overcomes biasing forces acting on the latch allowing the latch to be moved out of the plane of the latch so that the clamp may be moved relative to the one of the first and second arms.

13. (Original) The surgical retractor of claim 1 wherein the clamp further comprises a member housing the slot therein; said surgical retractor in combination with a hand held gripper having a handle connected by a shaft to a shoe, said shoe having a slot for receiving a connector head of a retractor blade therein; said connector head passing through the mount in the leg and being at least partially retained in the mount by the shoe.

14. (Original) The surgical retractor of claim 13 wherein shaft is rotatable relative to the shoe, and further comprising a post, wherein rotation of the shaft in a first direction extends the post into the shoe for securing the head to the shoe with the clamp connected to the connector head.

15. (Original) The surgical retractor of claim 14 wherein the rotation of the shaft in the first direction extends the post into the slot until it contacts the connector head.

16. (Original) The surgical retractor of claim 13 wherein the shaft is angularly connected relative to the shoe and the member has a groove in which the shaft passes through when the shoe is connected to a connector head extending through the mount in the leg.